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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/764,250 | 01/22/2004 | Charles L. Kaufman | ITW 14537 | 8031 |
| 23721 | 7590 | 12/13/2005 | EXAMINER | |
| CORRIGAN LAW OFFICE 5 BRIARCLIFF CT APPLETON, WI 54915 | | | SHAW, CLIFFORD C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1725 | |
| DATE MAILED: 12/13/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/764,250 | Applicant(s) KAUFMAN ET AL. | |
| | Examiner Clifford C. Shaw | Art Unit 1725 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>0419</u> . | 6) <input type="checkbox"/> Other: ____ |

Detailed Action

1.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.) Claims 1, 3, 10, 12, 13, 19, 21, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton et al. (4,247,751). Figure 1 and 2 in the patent to Ashton et al. (4,247,751) teaches a welding power supply with features claimed, including: source of welding power H; wire feeder associated with B; and controller including C responsive to a trigger signal from SW7 in figure 2. The system of Ashton et al. (4,247,751) also includes an “acceleration circuit” as discussed in columns 9 and 10 that starts the wire feed motor in accordance with a predetermined acceleration curve, before the wire feed speed value set for welding is activated. The claims differ from the teachings of Ashton et al. (4,247,751) in calling for a delay associated with the wire feed. This difference does not patentably distinguish over the prior art. Although the patent to Ashton et al. (4,247,751) does not explicitly use the term “delay”, it is considered obvious that the acceleration control in Ashton et al. (4,247,751) constitutes a wire feed delay because this control acts to delay for a predetermined time period the onset of the previously set welding wire feed speed value.

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3.) Claims 2, 11, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton et al. (4,247,751) as applied to claims 1, 3, 10, 12, 13, 19, 21, and 27 above, and further in view of Chopp et al. (3,546,423). The only aspect of the claims to which the rejection above does not apply is the provision for a delay of 20 milliseconds. This difference does not patentably distinguish over the prior art. It is considered obvious that the acceleration circuit in Ashton et al. (4,247,751) be configured to delay the onset of the set wire feed speed for a period of 20 milliseconds as claimed, the motivation being the teachings of Chopp et al. (3,546,423) that a delay of between 5 and 50 milliseconds between the contact of an electrode with a workpiece and the start of wire feed speed is useful (see column 3, lines 35-40 in Chopp et al. (3,546,423)).

4.) Claims 4-8, 14-17, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton et al. (4,247,751) as applied to claims 1, 3, 10, 12, 13, 19, 21, and 27 above, and further in view of Puschner (4,201,906). The only aspect of the claims to which the rejection above does not apply is the provision for a particular type of power supply. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used a power supply in Ashton et al. (4,247,751) with the features claimed, the motivation being the teachings of Puschner (4,201,906) that a power supply that can switch between CC, CV, and pulsing is advantageous (see the discussion in columns 4-6 of Puschner (4,201,906)).

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5.) Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton et al. (4,247,751) as applied to claims 1, 3, 10, 12, 13, 19, 21, and 27 above, and further in view of Toth (4,079,231). The only aspect of the claims to which the rejection above does not apply is the provision for control based on detection of an open circuit. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the arrangement taught by Ashton et al. (4,247,751) with the claimed control based on a sensed open circuit, the motivation being the teachings of Toth (4,079,231) that it is advantageous to terminate the wire feeder when an open circuit is sensed (see column 1, line 55 through column 2, line 10 in Toth (4,079,231)), thereby satisfying the claims.

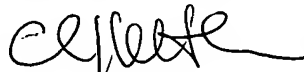
6.) Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton et al. (4,247,751) taken with Chopp et al. (3,546,423) as applied to claims 2, 11, and 20 above, and further in view of Toth (4,079,231). The only aspect of the claim to which the rejection above does not apply is the provision for control based on detection of an open circuit. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the arrangement taught by Ashton et al. (4,247,751) with the claimed control based on a sensed open circuit, the motivation being the teachings of Toth (4,079,231) that it is advantageous to terminate the wire feeder when an open circuit is sensed (see column 1, line 55 through column 2, line 10 in Toth (4,079,231)), thereby satisfying the claim.

7.) The patents to Hartsell, Jr. et al. (3,536,879) is cited to show a prior art welder wherein there is a delay between the start of the arc and the start of wire feed into the arc (see figures 7d and 7f). The patent to Hongu et al. (5,168,144) is cited to show a prior art welder that includes a timer to control wire feed parameters (see elements 13-17 in figure 1).

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Clifford C Shaw
Primary Examiner
Art Unit 1725

December 8, 2005